

1. A method of making double stranded RNA having a selected sequence comprising the steps of:

5 a) forming an admixture of an RNA dependent RNA polymerase, reagents for the synthesis of transcript nucleic acids, and at least one template nucleic acid, said template nucleic acid acting as a template for the synthesis of RNA encoding said selected sequence upon the imposition of nucleic acid synthesis conditions and in the presence of said reagents and RNA dependent RNA polymerase;

10 b) imposing nucleic acid synthesis conditions on said admixture to form an amplification product comprising double stranded RNA encoding the selected sequence.

15 2. The method of claim 1 wherein said template nucleic acid is a deoxyribonucleic acid.

3. The method of claim 1 wherein said RNA dependent RNA polymerase is Q-Beta replicase and modifications thereto.

20 4. The method of claim 1 wherein said reaction product comprising double stranded RNA inhibits the expression of a selected gene in a cell.

5. The method of claim 1 wherein said template nucleic acid has portions represented by the formula:

25 5'A-B-C 3'

30 wherein at least one letter A and C represents a sequence recognized by said RNA dependent RNA polymerase and at least one of said A and C represents the antisense of said sequence recognized by said RNA dependant RNA polymerase, and the letter B represents a sequence corresponding to the selected sequence of the antisense of said selected sequence.

35 6. The method of claim 5 wherein said sequence represented by A and C are synthesized with the sequence represented B.

7. The method of claim 5 wherein said sequence represented by A and C are cloned to the sequence represented by B.

40 8. The method of claim 5 wherein said template is a deoxyribonucleic acid.

45 9. The method of claim 8 wherein said admixture further comprises a DNA-dependent RNA polymerase, said T7 DNA-dependent RNA polymerase transcribing said template to make at least one RNA recognized by said RNA dependent RNA polymerase which RNA dependent RNA polymerase generates an amplification product.

10. The method of claim 1 wherein said reagents for the synthesis of nucleic acid comprise modified nucleotides.
11. The method of claim 10 wherein said modified nucleotides have modifications at the number two position.
12. The method of claim 11 wherein said modified nucleotides comprise limited 2'-amino, 2'-fluoro, 2'-azido, 2'-O-methyl, 2'-ara.
13. The method of claim 1 wherein said amplification product is used for RNAi.
14. A kit for making double stranded RNA comprising:
- a) an RNA dependent RNA polymerase which RNA dependent RNA polymerase synthesizes double stranded nucleic acid in the presence of reagents;
 - b) reagents for the synthesis of transcript nucleic acids;
 - c) means for making at least one template nucleic acid, said template nucleic acid acting as a template for the synthesis of RNA encoding said selected sequence upon the imposition of nucleic acid synthesis conditions and in the presence of said reagents and RNA dependent RNA polymerase;
 - d) instructions for imposing nucleic acid synthesis conditions on said admixture to form an amplification product comprising double stranded RNA encoding the selected sequence.
15. The kit of claim 14 wherein said template nucleic acid is a deoxyribonucleic acid.
16. The kit of claim 14 wherein said RNA dependent RNA polymerase is Q-Beta replicase and modifications thereto.
17. The kit of claim 14 wherein said reaction product comprising double stranded RNA inhibits the expression of a selected gene in a cell.
18. The kit of claim 14 wherein said template nucleic acid has portions represented by the formula:

5' A-B-C 3'

- wherein at least one letter A and C represents a sequence recognized by said RNA dependent RNA polymerase and at least one of said A and C represents the antisense of said sequence recognised by said RNA dependant RNA polymerase, and the letter B represents a sequence corresponding to the selected sequence of the antisense of said selected sequence.

19. The method of claim 18 wherein said sequence represented by A and C are synthesized with the sequence represented B.
- 5 20. The kit of claim 18 wherein said sequence represented by A and C are cloned to the sequence represented by B.
21. The kit of claim 18 wherein said template is a deoxyribonucleic acid.
- 10 22. The kit of claim 18 wherein said admixture further comprises a DNA-dependent RNA polymerase, said DNA-dependent RNA polymerase transcribing said template to make at least one RNA recognized by said RNA dependent RNA polymerase which RNA dependent RNA polymerase generates an amplification product.
- 15 23. The kit of claim 14 wherein said reagents for the synthesis of nucleic acid comprise modified nucleotides.
24. The kit of claim 23 wherein said modified nucleotides have modifications at the number two position.
- 20 25. The kit of claim 24 wherein said modified nucleotides comprise limited 2'-amino, 2'-fluoro, 2'-azido, 2'-O-methyl, 2' ara.
26. The kit of claim 14 wherein said amplification product is used for RNAi.

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